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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,400	03/19/2001	Lester F. Ludwig	LUDW-001/02-03US	7356
616	7590	07/07/2005	EXAMINER	
THE MAXHAM FIRM 750 "B" STREET, SUITE 3100 SAN DIEGO, CA 92101			FLETCHER, MARLON T	
			ART UNIT	PAPER NUMBER

2837

DATE MAILED: 07/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/812,400	Applicant(s) LUDWIG, LESTER F.	
	Examiner Marlon T. Fletcher	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 30-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (5,981,859).

Suzuki (claim 30) discloses a control signal processing system (fig. 2) for responsively generating Midi control signals, said system comprising: an incoming control signal interface (11/56) adapted to receive an incoming MIDI control signal; a controllable low frequency oscillator (17) comprising at least one parameter (12/13), said at least one parameter comprising a value selectable from a plurality of values, wherein said value of said at least one parameter is determined by said incoming MIDI control signal (13), and wherein said controllable low frequency oscillator is adapted to generate an outgoing MIDI control signal responsive to said value of said at least one parameter; and an outgoing control signal interface (figure 2) adapted to communicate said outgoing MIDI control signal.

Suzuki (claim 31) discloses the system, wherein frequency of said controllable low frequency oscillator is controlled by said value of said at least one parameter (column 3, lines 49-64).

Suzuki (claim 32) discloses the system, wherein a waveform of said

controllable low frequency oscillator is controlled by said value of said at least one parameter (col. 4, lines 4-9).

Suzuki (claim 33) discloses the system, further comprising: a plurality of controllable low frequency oscillators, each composing at least one parameter, wherein said at least one parameter, for each of said plurality of controllable low frequency oscillators, comprises a value selectable from a plurality of values, wherein said value of said at least one parameter is determined by said incoming MDI control signal, and wherein each of said plurality of controllable low frequency oscillators is adapted to generate a separate outgoing MID1 control signal responsive to said at least one parameter (Figure 9; and col. 9, lines 1-5)

Suzuki (claim 34-39) discloses the system, wherein one of said plurality of controllable low frequency oscillators is a master low frequency oscillator; wherein at least one of said plurality of controllable low frequency oscillators is a slave low frequency oscillator producing an oscillation that is driven by said master low frequency oscillator; wherein said slave low frequency oscillator produces an oscillation that is phase shifted; wherein said slave low frequency oscillator produces a waveform that is different from a waveform that is produced by said master low frequency oscillator; wherein phase of said slave low frequency oscillator is controlled by said value of said at least one parameter; wherein frequency of said master low frequency oscillator is controlled by said value of said at least one parameter (Figure 9; and column 8, line 40 through column 9, lines 54).

Suzuki (claim 40) discloses a control signal processing system for responsively generating MIDI control signals, said system comprising: an incoming control signal interface adapted to receive an incoming MIDI control signal; a controllable envelope generator (18) comprising at least one parameter, said at least one parameter comprising a value selectable from a plurality of values, wherein said value of said at least one parameter is determined by said incoming MIDI control signal, and wherein said controllable envelope generator is adapted to generate an outgoing MIDI control signal responsive to said value of said at least one parameter; and an outgoing control signal interface adapted to communicate said outgoing MIDI control signal.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Lindemann et al. (5,744,742).

Suzuki is discussed above. Suzuki does not disclose a ramp generator or a slew limiter.

However, Lindemann et al. disclose the system, wherein said controllable envelope generator is a ramp generator (fig. 3, column 18, lines 27-31; and column 23, lines 35-44).

Official Notice is taken with respect to it being well known in the art to provide a controllable envelope generator, which is a transient generator with a slew limiter.

It would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize the teachings of Lindemann et al., because the enhancement allows the ability to ramp or limit the envelope, thereby varying the sound.

5. Claims 40-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sgroi in view of Fay (2002/0124715) and Longo.

Sgroi discloses a method for processing control signals to generate a non-merging mathematical function of values of said control signals, said method comprising: obtaining a first control signal value from a first incoming real-time control signal (figures 1, 3, and 4); obtaining a second control signal value from a second incoming MIDI control signal; numerically multiplying said first control value and said second control value to produce a multiplied value; and generating an outgoing MIDI control signal based upon said multiplied value (figures 1 and 3); wherein prior to said generating, said method further comprises: adding an offset to said multiplied value (figure 3); wherein said offset is determined by a third incoming control signal; and

generating an outgoing MDI control signal based upon said summed value (figures 3 and 4). Sgroi discloses identifying a temporal sequence of said first and second events of said first and second incoming control signals (figures 1, 3, and 4);

Sgroi does not disclose a plurality of MIDI inputs.

However, Fay (2002/0124715) discloses a plurality of MIDI inputs (fig. 3) which are controlled through a processor (mapping component), wherein the inputs are synthesized as group through synthesizer (210).

Longo discloses a system for the generation of at least one outgoing real-time digital control signal based on at least one incoming control signal, the system comprising: an incoming control signal (200) adapted to receive the at least one incoming control signal', at least one control signal generator (210) adapted to generate the at least one outgoing real-time digital control signal based on the at least one incoming control signal, an outgoing control signal interface (Midi out; figure 2) adapted to communicate the generated at least one outgoing real-time digital control signal; and wherein the at least one incoming control signal is used to control events and parameters associated with the at least one control signal generator as seen in figures 2 and 3. Longo discloses at least one control signal generator adapted to generate the at least one outgoing real-time digital control signal based on the at least one incoming control signal, wherein said at least one control signal generator is selected from the group consisting of transient generator (figure 2).

Longo discloses a method, wherein prior to said generating, said method comprises: multiplying said summed value by a scaling value (800); wherein said scaling value is determined by a third incoming MIDI control signal.

Longo discloses the method, wherein both the first incoming real-time control signal and the second incoming control signal comprise values, and wherein the control signal processor performs one operation selected from the group consisting of: multiplication of the values of the first and second incoming control signals', addition of the values of the first and second incoming control signals as discussed in column 25, lines 29-42.

Longo discloses the method for processing an incoming real-time MIDI control signal, the method comprising: receiving the incoming real-time MIDI control signal', generating an outgoing real-time MIDI control signal, wherein said generating is performed by one or more message conversion methods selected from the group consisting of: changing an incoming MIDI note number value to an outgoing MIDI continuous controller value (figure 2), changing an incoming MIDI note velocity value to an outgoing MIDI continuous controller value (figure 2), changing an incoming MIDI continuous controller value to an outgoing MIDI note value (figure 2); changing an incoming MIDI continuous controller value to an outgoing MIDI continuous controller value with scaling (figure 4); and communicating the generated outgoing real-time MIDI control signal to an external system via an outgoing control signal interface (figure 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of Fay and Longo with the apparatus of Sgroi, because

references enhance Sgroi, by allowing the incoming control signals to be MIDI signals, wherein the signals are processed and combined to generate output signal based on the input, wherein the output is a MIDI signal.

Response to Arguments

6. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.


The applicant has made specific arguments regarding the previously submitted claims. Although all new claims have been submitted, the subject matter is relative to the previously submitted claims. The rejection above, addresses the claims presently submitted.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T. Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-W, F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2837

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Marlon T. Fletcher
Primary Examiner
Art Unit 2837

MTF
06/27/2005